

Remarks

Claims 1-9, 11, 14-17, 19, 21-29, 31, and 34 remain in this application. Claims 10, 12, 13, 18, 20, 30, 32, and 33 are canceled. Claims 1, 15, and 24 are amended to state that the source of choline is lecithin. Support for this amendment can be found, *inter alia*, in canceled claims 10, 18, and 30, respectively. Claims 11, 19, and 31 are amended such that they do not depend from canceled claims.

Rejection Under 35 USC §103(a)

Claims 1-34 are rejected under 35 USC §103(a) as being unpatentable over Dutilh (US 4,608,267).

As stated in the Office Action, Dutilh discloses a process of making a choline-fortified cereal by combining wheat bran and honey and extruding at 150°C. (col. 6, lines 47-55). In this Example 3, wheat bran and honey are thoroughly mixed with lecithin and the mixture was extruded at 150°C and the extruded material cut into bits that could be eaten as breakfast cereal with milk. Dutilh teaches away from the present invention in that lecithin is added to the wheat bran followed by heating in the extruder.

As stated in the present description in paragraph [0004],

Unfortunately, the popular ready-to-eat breakfast cereals have not been fortified with choline because past attempts at fortifying ready-to-eat breakfast cereals with choline have produced an unacceptable food product. More specifically, attempts have been made to produce a choline-fortified, ready-to-eat breakfast cereal by adding a source of choline to the raw cereal ingredients at the beginning of the extrusion process, before cooking the cereal ingredients. However, the added choline interferes with the cook stage of the extrusion process, thereby resulting in an extrusion product lacking the elasticity needed to form acceptable flakes. Ultimately, the resulting cereal flakes have an undesirable texture, flavor, appearance, and bowl life. Therefore, a need remains for a choline-fortified, ready-to-eat breakfast cereal and a method for producing the same.

Dutilh teaches adding a source of lecithin to the raw cereal ingredients at the beginning of the extrusion process, before cooking the cereal ingredients. In contrast, in the present claims, as exemplified in Example I, the cereal ingredients are cooked in an extruder to produce a cooked cereal mass. To this cooked cereal mass is added a source of choline to produce a choline-

fortified cereal mass. After drying and toasting, a ready-to-eat choline-fortified corn flakes are obtained. The choline fortified, ready-to-eat corn flakes were desirable in appearance being yellow in color and having a rough surface, acceptable curl, and some cupping. With respect to texture, the choline fortified, ready-to-eat corn flakes were acceptably hard, having good chew-down and moderately fracturable. The choline fortified, ready-to-eat corn flakes had good mouthfeel and were not gritty or slimy. The choline fortified, ready-to-eat corn flakes demonstrated an excellent bowl-life, maintaining good texture and mouthfeel for approximately three minutes after immersion in milk. With respect to flavor, the choline fortified, ready-to-eat corn flakes had a good flavor with no distinct lecithin flavor.

Example II of the present invention is similar to Example 3 of Dutilh. Choline fortified cereal flakes are produced using a method similar to Example I, except that the 40% PC lecithin is added to the beginning of the extruder, prior to the cook zone. In this example, unacceptable choline fortified, extruded pellets are obtained. More specifically, the choline fortified, extruded pellets exiting the extruder lacked elasticity, which caused the pellets to shred at the flaking rolls, thereby making it difficult to produce flakes. The resulting flakes appeared raw in color and did not toast. With respect to flavor, the flakes imparted an off-flavor or lecithin flavor and were very dry tasting. The texture of the flakes was undesirable. Particularly, the flakes were too tender and demonstrated a poor bowl life.

This comparison of Examples I and II demonstrates the importance of adding lecithin to the cooked cereal mass versus adding lecithin to the cereal mass before cooking. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 14, 15, and 34 are rejected under 35 USC §103(a) as being unpatentable over CN 1,271,539 A (Lu et al.).

Lu et al. follow a procedure similar to Dutilh and to comparative Example II of the present invention. Lu et al. combine pulverized barley, lecithin, a monoglyceride, and water to uniformity and extruding and puffing this mixture in an extruder, followed by baking, crushing and compounding with oligoisomaltose or black sesame. The product so formed is used as an instant barley gruel. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 14, 15, 17, 20, 21, 23, and 24 are rejected under 35 USC §103(a) as being unpatentable over Wullschleger et al. (US 5,227,248).

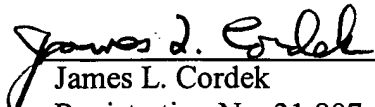
As stated in the Office Action, Wullschleger et al. disclose a ready to eat cereal product containing 0.5% choline chloride. The independent claims have been amended to state that the source of choline is lecithin and not choline chloride. In the present invention, lecithin is employed that contains from 20-90% phosphatidyl choline (PC). Once in the body, the cereal having been fortified with PC, breaks down thus releasing choline. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

For the foregoing reasons, it is submitted that the present claims are in condition for allowance. The foregoing remarks are believed to be a full and complete response to the outstanding office action. Therefore favorable reconsideration and allowance are respectfully requested. If for any reason the Examiner believes a telephone conference would expedite the prosecution of this application, it is respectfully requested that he call Applicant's representative at 314.982.2409.

If any additional fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-0421.

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